

Work Order ID 149183 - 1 split

149183

Page 1

Thursday, July 21, 2016 10:54:12 AM

Item ID: D4635-1 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Fwd Ceiling Panel, LH
 Start Date: 7/21/2016 Start Qty: 2.00 *2*
 Required Date: 7/28/2016 Req'd Qty: 2.00 *2*
 Reference: Cust Item ID:
 Customer:

Approvals: Process Plan: dm Date: 11/07/21 Tooling: _____ Date: _____
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____
 Run Start *NR1*
 Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D4635	F

100		0.00							DAS 07 9-89
100	HAND FINISHING THERMOFORMING								
Thermoform	Memo	0.05							
Thermoforming Machine	Cut Blanks								16/08/17

105		0.00							DAS 07 9-89
105	Dry Material								
HandThermo	Memo	0.00							
Hand Finishing Thermoforming	Dry Sheet as per QSI022 POLYCARBONATE								16/08/17

Temp: 245 deg. F
 Time IN: 5:00 PM
 Time OUT: 6:00 AM

AUG 16 2016

Per... Dlu...

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By		
							Lead hand / Supervisor Approval Verification		
							QC / QA Coordinator Approval		

Root Cause				FAULT CATEGORY			
Environment ☐	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐
Design ☐	☐	Operator	☐	Bending	☐	Set-up	☐
Doc/Data ☐	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐
Equip/Tooling ☐	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐
Handling/Pre ☐	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐
Material ☐	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐
Internal Transport ☐	☐	Poor Information	☐	Crushing	☐	Countersink	☐
Tribal Knowledge ☐	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐
LOA ☐	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐
Substation ☐	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐
Past Expiry Date ☐	☐	Manufacturing Process	☐	OTHER : _____			
Misidentified ☐	☐	Past Due	☐				

Thursday, July 21, 2016 10:54:12 AM

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Page 2

N900040100

Setup Start *NS1*

Stop *NS2*

Cust Item ID:

Start Date: 7/21/2016 **Start Qty:** 2.00

?

Customer:

Required Date: 7/28/2016 **Req'd Qty:** 2.00

~

Reference:

Run Start *NR1*

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Stop *NR2*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

[illegible]

DQA: _____ Date: _____



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Reference:

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QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Standards
140 *140* QC Quality Control	QC6- Inspect dimensions to drawing Dimensional Inspection Memo Fill out Inspection Sheet Rev A	0.00 0.00				2			DAS 07 9-89 16/07/ce
150 *150* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.01							DAS 27 9-89 SEP 08 2016
160 *160* Packaging Packaging Packaging	Packaging Memo	0.00 0.00							DAS 27 9-89 SEP 08 2016 PPA49094

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
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Required Date: 7/28/2016 Req'd Qty: 2.00 ***2*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
170	QC21- Final Inspection - Work Order Release	0.00							
170							DAS 21 9-89	SEP 12 2016	
QC	Memo	0.03							
Quality Control									

DAS
21
9-89
SEP 12 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

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Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
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Equip/Tooling ☐	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐
Handling/Pre ☐	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐
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Past Expiry Date ☐	☐	Manufacturing Process	☐	OTHER : _____			
Misidentified ☐	☐	Past Due	☐				

Picklist Print

Thursday, July 21, 2016 10:54:12 AM

Work Order ID: 149183

149183

Parent Item: D4635-1

D4635-1

Parent Item Name: Fwd Ceiling Panel, LH

Start Date: 7/21/2016

Required Date: 7/28/2016

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP Rev. A New Issue 12/05/07 DL VERIFIED BY:JLM IPP Rev. B
Dwg. Update 12/11/08 DL IPP Rev. C Dwg Update
13/07/09 DL IPP Rev D Dwg Update, Material
Change 13/12/09 DL IPP Rev. E Dwg. Update. 14/01/09 DL
IPP Rev. F Dwg Update 15/01/27 DL

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MLEXS.093-F6006-07		Purchased	No			100	sf	380.9000	25.27	50.54			DAS 07 9-89

MI FXS 093-F6006-07

GE PLASTICS LEXAN SHEET (Grey)

Location

Loc Qty

Loc Code

MAT023

380.9

m129738

380.9

M135322

50.54 sq ft

12/08/17

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order update only ☐

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OTHER : _____					

DART AEROSPACE LTD		Work Order:	149183
Description: LH Fwd Ceiling Panel		Part Number:	D4635-1
Inspection Dwg: D4635	Rev: EF & L	Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
14.00	+/-0.030	14.0"				
28.00	+/-0.030	28.0"				
42.00	+/-0.030	42.0"				
55.00	+/-0.030	55.0"				
5.00	+/-0.030	5.0"	✓			
12.6	+/-0.100	12.6"	✓			
18.6	+/-0.100	18.6"	✓			
38.4	+/-0.100	38.4"	✓			
44.4	+/-0.100	44.4"	✓			
1.3	+/-0.100	1.3"	✓			
7.0	+/-0.100	7.0"	✓			
7.00	+/-0.030	7.0"	✓			
Ø2.03	+0.012/-0.001	2.03"	✓			
Ø0.191	+0.005/-0.001	Ø0.191"	✓			
Ø3.50	+0.012/-0.001	Ø3.52"	✓			
3.300	+/-0.010	3.3"	✓			
1.650	+/-0.010	1.65"	✓			
Ø0.129	+0.005/-0.001	Ø0.129"	✓			
1.300	+/-0.010	1.3"	✓			
0.650	+/-0.010	0.65"	✓			
0.35 - 0.40	+/-0.030	0.365"	✓			
0.30	+/-0.030	0.326"	✓			
0.50	+/-0.030	0.51"	✓			

Measured by:	DAS 07 9-89	Audited by:	DAS 27 9-89	Preliminary Approval:	
Date:	14/09/08	Date:	SEP 08 2016	Date:	

Rev	Date	Change	Revised by	Approved
A	14.07.29	New Issue	KJ	

DQA: _____ Date: _____

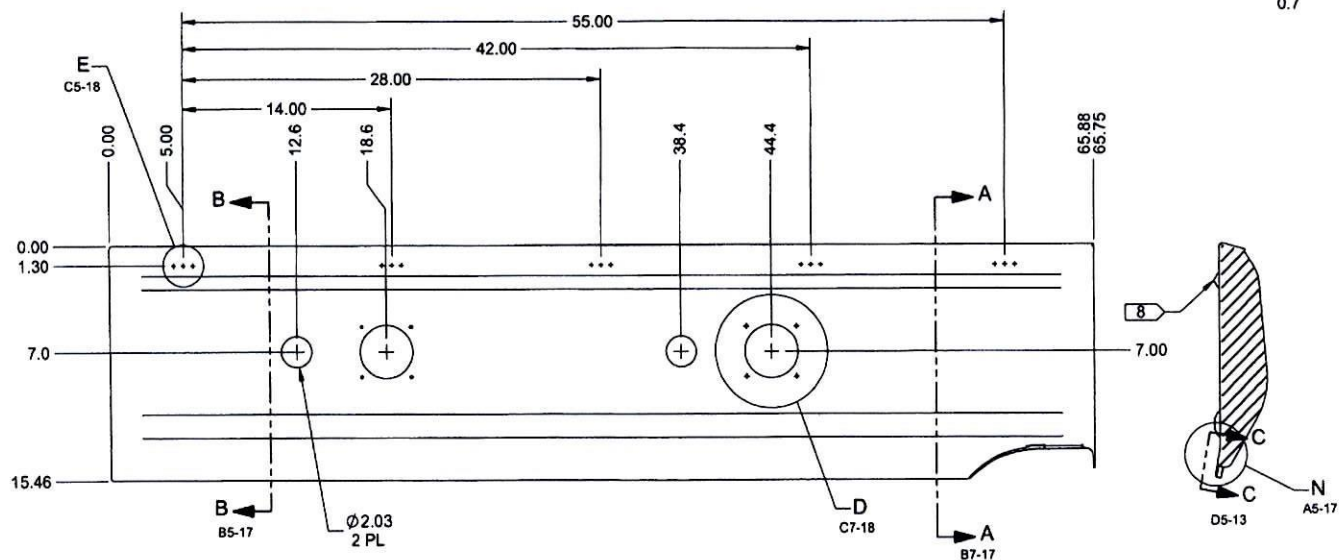
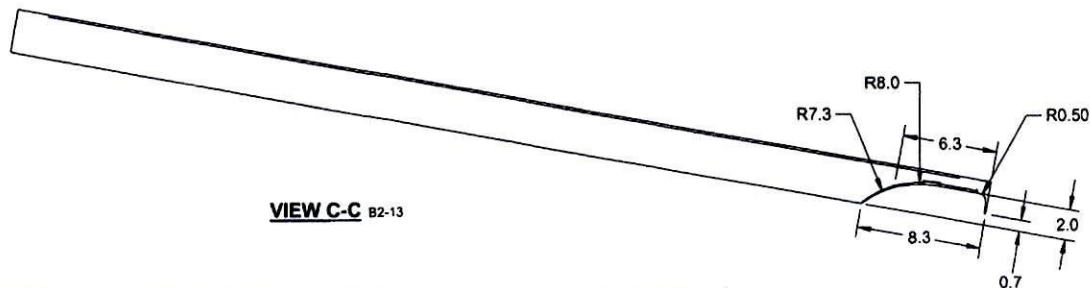


WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
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Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					



NOTES:

- 1) MATERIAL: F6006 SUEDE/POLISHED GY5B133 LIGHT GREY LEXAN SHEET 0.093 THICK (REF DART SPEC MLEXX.093-F6006-07)
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 4.39 lbs
- 8) TEXTURE ON THIS SIDE
- 9) TRIM D4635-1 PER TOOL DT9839
- 10) THERMOFORM D4635-1 PER QSI 022 USING DT9847 TOOL
MIN. THICKNESS AFTER FORMING:
SHADED AREA = 0.040
RIDGES/EDGES = 0.060
ELSEWHERE = 0.070

D4635-1 LH, FWD CEILING PANEL

RELEASED

2015 JAN 26

APPROVED	DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
	DRAWN	RF		
	CHECKED	AK	DRAWING NO. D4635	REV. F
	MFG. APPR.	DL	SHEET 13 OF 18	
	APPROVED	HS	TITLE	SCALE
	DE APPR.	DS	OUTBOARD CEILING PANELS NTS	
DATE		14.11.28	COPYRIGHT © 2012 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	

w/o 149183

2m 16/07/21

DQA: _____ Date: _____

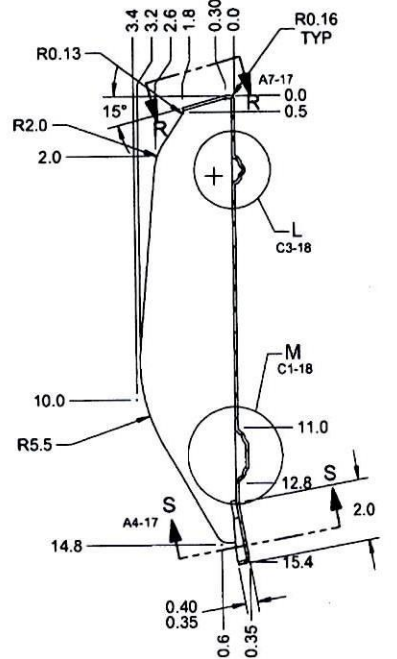


WORK ORDER NON-CONFORMANCE / UPDATE

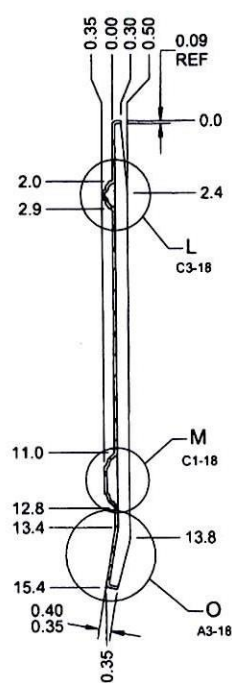
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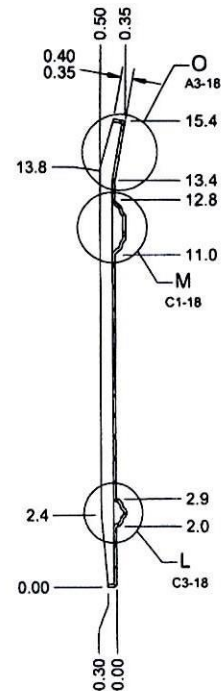
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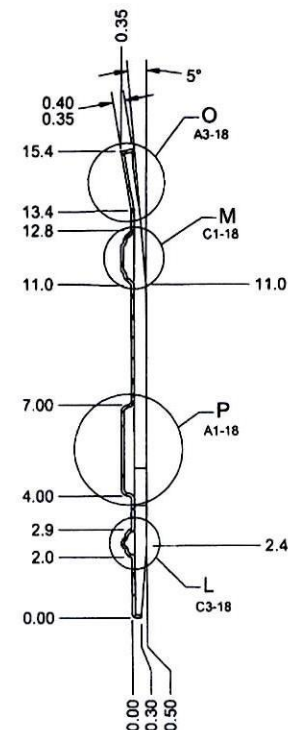
SECTION A-A
SECTION A-A' OPPOSITE
SCALE 2X



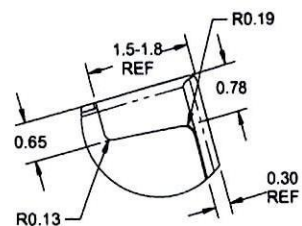
SECTION B-B
SCALE 2X



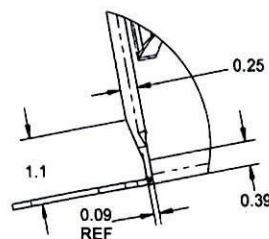
SECTION G-G
SCALE 2X



SECTION K-K
SCALE 2X



AUXILIARY VIEW R-R
SECTION R-R' OPPOSITE
SCALE 2X



AUXILIARY VIEW S-S
SECTION S-S' OPPOSITE
SCALE 2X

RELEASED

2015 JAN 26

APPROVED

DESIGN	RF
DRAWN	RF
CHECKED	AK
MFG. APPR.	DL
APPROVED	HS
DE APPR.	DS
DATE	14.11.28

DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWING NO. D4635	REV. F SHEET 17 OF 18
TITLE OUTBOARD CEILING PANELS	SCALE NTS
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DQA: _____ Date: _____



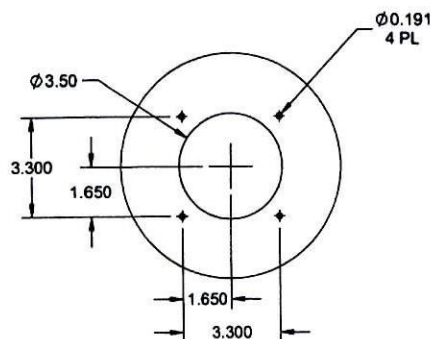
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

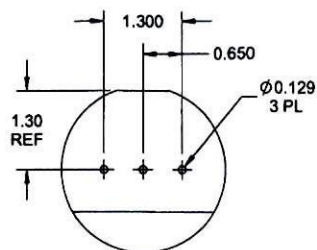
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

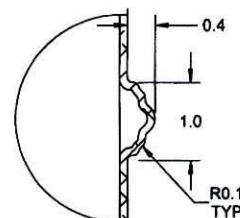
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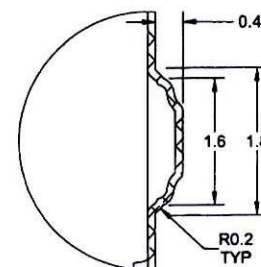
DETAIL D
SCALE 2X
B4-13
B3-14
B5-15
B5-16



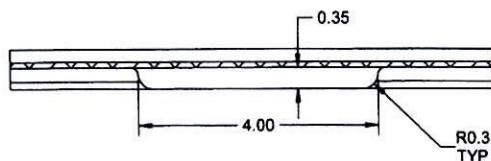
DETAIL E
SCALE 4X
C7-13
B8-14
C8-15
B5-16



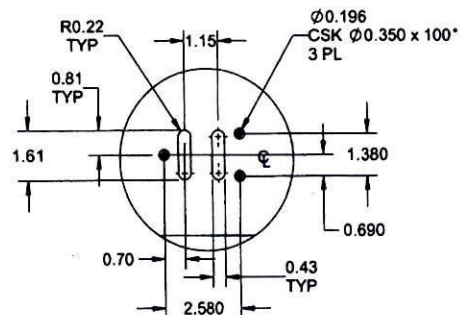
DETAIL I
SCALE 1.5X
B2-17
B4-17
C5-17
C7-17



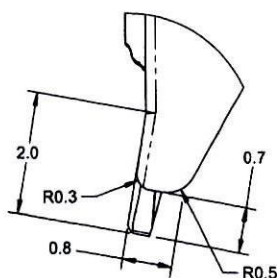
DETAIL M
SCALE 1.5X
C2-17
C3-17
C5-17
C7-17



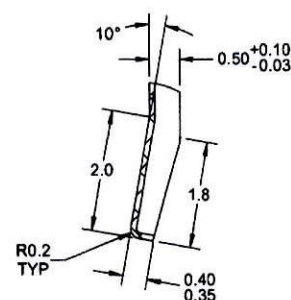
SECTION I-I
SCALE 4X
B5-16



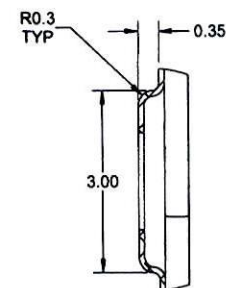
DETAIL Q
SCALE 2X
C5-16



DETAIL N
SCALE 2X
B2-13



DETAIL O
SCALE 2X
D2-17
D3-17
B5-17



DETAIL P
SCALE 4X
C2-17

RELEASED
2015 JAN 26 up

APPROVED

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	AK	DRAWING NO.	REV. F
MFG. APPR.	DL	D4635	SHEET 18 OF 18
APPROVED	HS	TITLE	SCALE
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8 7 6 5 4 3 2 1

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OTHER : _____					